

REMARKS

The specification has been amended to correct a typographic error. Claims 6, 7, 12, and 14 have been amended and claims 1-5, 11, 13, and 16-19 have been cancelled. New claims 20-27 have been added. No new matter is added. New claims 20-27 are supported by Figures 3a~3d and the corresponding text on page 10, 3rd paragraph through page 12, 4th paragraph, among other places. Claims 6-10, 12, 14, 15, and 20-27 remain pending.

The Examiner has objected to claims 2 and 7. Claim 2 has been cancelled and claim 7 has been amended to cite its previously missing dependency on claim 6.

The Examiner has rejected claims 3-5 under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 3-5 have been cancelled.

The Examiner rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over Lamattina (US 4,584,479). Additionally, claims 6-10 and 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lamattina in view of Law (US 3,600,065). Claims 11-13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lamattina in view Law as applied to Claims 6-10 and in further view of Young (US 4,818,838). The Examiner's rejections are respectfully traversed as follows.

The Examiner has indicated that claims 14 and 15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. A majority of the limitations of claim 14 and its intervening claims have been incorporated into claim 6. However, particular aspects of the claim 6 have been amended to broaden or clarify particular elements of the invention.

Claim 6 is directed towards "a particle beam device which operates upon a test subject, wherein at least a portion of the particle beam device is maintained in a vacuum." Claim 6 also requires "a particle generator"; "at least a first particle focusing device, the particle generator and the at least first particle focusing device together being formed into a first particle beam column", and "a plurality of air bearings to support the particle beam column and to permit the particle beam column to move in a nearly frictionless manner across a top surface of a first support table" as recited in originally filed claim 6.

Claim 6 also requires "a sample holding station located within the top surface of the first support table, the sample holding station holding at least a first surface of a test object in an essentially co-planar relationship with the top surface of the first support table, wherein the sample holding station comprises at least a well in the top surface of the first support table for

receiving the test object therein, and wherein the sample holding station further comprises a plurality of lifter assemblies and a vacuum chuck, the lifter assemblies in a first extended position receiving the test object and in a second, compressed position holding the test object in proximity to the vacuum chuck so that the vacuum chuck can hold the test object, the compressed position being such that the top surface of the test object is held in a co-planar relationship with the top surface of the first support table" and "an air bearing leveling tool for placing the test object into the second, compressed position, the air bearing leveling tool having a plurality of air bearings which are applicable to the top surface of the test object to thereby force the test object and the lifter assemblies into the second, compressed position."

In other words, the particle beam device includes a leveling device having air bearings for setting the test object into a compressed position to be held of a vacuum device. Such an arrangement, of course, allows frictionless positioning of the test object.

Independent claims 20 and 24 also recite an air bearing leveling device or use of the same.

The primary reference Lamattina merely discloses a photolithography system having a staged vacuum between the column and the test sample. Although Lamattina also discloses air bearings between the vacuum envelope and the test sample (see Column 9, lines 25-34), Lamattina fails to disclose an air bearing leveling device in the manner claimed. The secondary references also fail to teach or suggest such element or use of such element. Since the cited references fail to teach or suggest an air bearing leveling device in the manner claimed, it is respectfully submitted that independent claims 6, 20, and 24 are patentable over the art of record.

The Examiner's rejections of the dependent claims are also respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 7-10, 12, 14, 15, and 20-27 each depend directly from independent claims 6, 20, or 24 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 6, 20, or 24. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



Mary Olynick
Reg. 42,963

P.O. Box 778
Berkeley, CA 94704-0778
(510) 843-6200